

GLOBAL ACADEMY OF TECHNOLOGY, BENGALURU

(An Autonomous Institute, affiliated to VTU, Belagavi)

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Fifth Semester B.E. Degree Examination, January - 2025

Research Methodology and IPR

Time: 3 hrs.

Max. Marks: 100

Note: Answer any Five full questions, choosing ONE full question from each module.

		Marks	CO's / Blooms Level
Module - 1			
1	a. Define Research process and Explain various steps in research process	7	CO1/L2
	b. Why Research Methodology is essential in the research process?	6	CO1/L2
	c. Write a Short notes on a) Objectives of Research b) Criteria of a good research	7	CO1/L2
OR			
2	a. What do you mean by Research? Explain its significance in modern times.	7	CO1/L2
	b. Distinguish between Research Methods and Research Methodology.	6	CO1/L2
	c. Discuss the differences between qualitative and quantitative research approaches. When and why might one be preferred over the other?	7	CO1/L2
Module - 2			
3	a. Explain how a literature review helps in refining and focusing the research problem	7	CO2/L2
	b. How does a before-and-after with control design differ from an after-only with control design?	6	CO2/L2
	c. Define Research Design? Explain the need and features of a good design.	7	CO2/L2
OR			
4	a. Examine the various types of research designs. When is each type of design most appropriate?	10	CO2/L2
	b. Compare and contrast formal and informal experimental designs with examples.	10	CO2/L3
Module - 3			
5	a. Explain the basic concept of sampling. How do you determine the sample size of a research study.	10	CO3/L2
	b. Probability sampling methods are believed to be superior to non-probability sampling methods. Critically evaluate this statement and justify your position.	10	CO3/L2
OR			
6	a. What is the difference between primary and secondary data sources in research? Provide examples of each.	10	CO3/L2
	b. The following are the number of departmental stores in 15 cities: 35, 17, 10, 32, 70, 28, 26, 19, 26, 66, 37, 44, 33, 29 and 28. If we want to select a sample of 10 stores, using cities as clusters and selecting within clusters proportional to size, how many stores from each city should be chosen? (Use a starting point of 10).	10	CO3/L2
Module - 4			
7	a. What is research hypothesis? State the characteristics of good hypothesis	7	CO4/L2
	b. Write the procedure for Hypothesis testing.	6	CO4/L2
	c. Explain briefly on testing the hypothesis	7	CO4/L2
	i) Null hypothesis ii) Level of Significance		
OR			
8	a. Define Research report and Explain various components of Research report.	6	CO4/L2
	b. Elaborate on different types of reports.	7	CO4/L2

- c. What is Interpretation? Discuss on the precautions that need to be taken by the research for correct interpretation.

7

CO4/L2

Module - 5

- 9 a. What is Intellectual property? What are the different types of it?
b. Explain briefly the Indian patent act of 1970

10

CO5/L2

10

CO5/L2

OR

- 10 a. Explain the importance of IPR in recent times.
b. Discuss the salient features of Copyright act 1957.

10

CO5/L2

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CO5/L2

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